# (12) UK Patent Application (19) GB (11) 2 388 134 (13) A

(43) Date of Printing by UK Office

05.11.2003

(21) Application No:

0314846.7

(22) Date of Filing:

11.01.2002

(30) Priority Data:

(31) 60262434

(32) 17.01.2001

1 (33) US

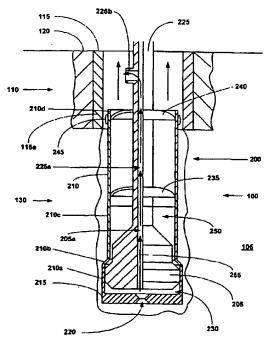
(86) International Application Data: PCT/US2002/000677 En 11.01.2002

- (87) International Publication Data: WO2002/068792 En 06.09.2002
- (71) Applicant(s):
   Enventure Global Technology
   (Incorporated In USA Delaware)
   16200 A.Park Row, Houston, Texas 77084,
   United States of America
- (72) Inventor(s):
  Robert Lance Cook
  Lev Ring

(continued on next page)

- (51) INT CL<sup>7</sup>: E21B 43/10
- (52) UK CL (Edition V ): E1F FLA
- (56) Documents Cited by ISA: US 6085838 A
- (58) Field of Search by ISA:
  Other
  U.S.:
  166/380,207,85.1,177.4,212,216,217,242.1,378

- (54) Abstract Title: Mono-diameter wellbore casing
- (57) A mono-diameter casing formed when a tubular liner (210) and an expansion cone (205) are positioned within a new section fo a wellbore (100) and the tubular liner (210) is overlapped with a pre-existing casing (115). A hardening fluid is injected into the section of the wellbore (100) below the level of the expansion cone (205) and into the annular region between the tubular liner (210) and the wellbore (100). The inner and outer regions of the tubular liner (210) are isolated. Then a non hardening fluid is injected into the interior region of the tubular liner (210) to pressurize it below the expansion cone (205). The overlapping portion of the pre-existing casing (115) and the tubular liner (210) are then expanded using an expansion cone (205).



### GB2388134 A continued

(74) Agent and/or Address for Service:
Haseltine Lake & Co
Imperial House, 15-19 Kingsway,
LONDON, WC2B 6UD, United Kingdom

### (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PAIRNT COOPERATION TREATY (PCT)

## (19) World Intellectual Property Organization International Bureau



## 

#### (43) International Publication Date 6 September 2002 (06.09,2002)

**PCT** 

# (10) International Publication Number WO 02/068792 A 1

(51) International Patent Classification7: E21B 19/16, 23/00

\_\_\_\_

RING, Lev [RU/US]; 14126 Heatherhill Place, Houston, TX 77077 (US).

- (21) International Application Number: PCT/US02/00677
- (22) International Filing Date: 11 January 2002 (11.01.2002)
- (25) Filing Language:

(

English

(26) Publication Language:

English

- (30) Priority Data: 60/262,434
- 17 January 2001 (17.01.2001) US
- (71) Applicant (for all designated States except US): ENVENTURE GLOBAL TECHNOLOGY [US/US]; 16200 A. Park Row, Houston, TX 77084 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): COOK, Robert, Lance [US/US]; 934 Caswell Court, Katy, TX 74450 (US).

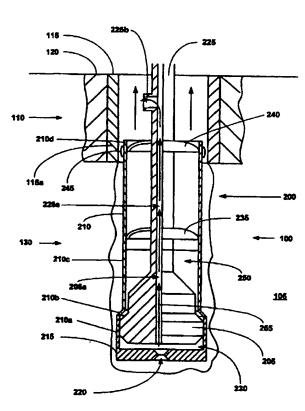
(74) Agents: MATTINGLY, Todd et al.; Haynes & Boone, LLP, Suite 4300, 1000 Louisiana Street, Houston, TX

77002-5012 (US).

- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR,

[Continued on next page]

(54) Title: MONO-DIAMETER WELLBORE CASING



(57) Abstract: A mono-diameter casing formed when a tubular liner (210) and an expansion cone (205) are positioned within a new section fo a wellhore (100) and the tubular liner (210) is overlapped with a pre-existing casing (115). A hardening fluid is injected into the section of the wellhore (100) below the level of the expansion cone (205) and into the annular region between the tubular liner (210) and the wellhore (100). The inner and outer regions of the tubular liner (210) are isolated. Then a non-hardening fluid is injected into the interior region of the tubular liner (210) to pressurize it below the expansion cone (205). The overlapping portion of the pre existing casing (115) and the tubular liner (210) are then expanded using an expansion cone (205)

### WO 02/068792 A1



GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

with amended claims

#### Declaration under Rule 4.17:

- of inventorship (Rule 4.17(iv)) for US only

#### Published:

- with international search report

Date of publication of the amended claims: 31 October 2002

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.